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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,077	07/10/2003	Jose Luis Moctezuma de la Barrera	80015/043	3385
29471	7590	02/25/2005	EXAMINER	
MCCRACKEN & FRANK LLP 200 W. ADAMS STREET SUITE 2150 CHICAGO, IL 60606			JOHNSON III, HENRY M	
			ART UNIT	PAPER NUMBER
			3739	

DATE MAILED: 02/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/617,077

Applicant(s)

MOCTEZUMA DE LA BARRERA ET AL.

Examiner

Henry M Johnson, III

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-59 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-59 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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Response to Arguments

Applicant's arguments with respect to claims 8, 22, 28-30 and 34-40 have been considered but are moot in view of the new ground(s) of rejection.

Claims 1-7, 9-21, 23-27, 31-33 and 41-58 previously indicated as allowable, are rejected based on new art.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 6-8 and 13-14 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,873,814 to Adair. Adair discloses a video display attached to a surgical instrument (Fig. 20) in communications with a CCD imaging device. The imaging device is broadly interpreted as a navigation system as it is capable of providing position and orientation information via the display. The display is located on the instrument so the operator does not have to "look away" from the work area to see the navigational information (Col. 15, lines 15-25). The display may be part of the instrument (Col. 12, line 44) or removable (Fig. 18). Function buttons may be provided on the display (Fig. 6, # 52). Adair discloses the communications link may be wireless (Col. 2, line 47).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

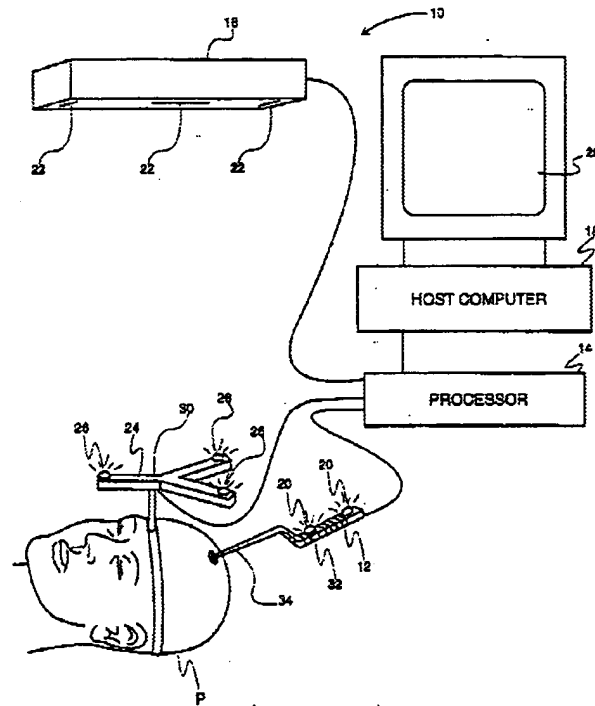
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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S.

Patent 5,873,814 to Adair as applied to claims 1 and 2 above and further in view of U.S. Patent 5,617,857 to Chader et al. Adair is discussed above, but does not disclose the tip with respect to a predetermined depth or a diagnostic image. Chader et al. teach an imaging system having a medical instrument including a source for

emitting detectable energy and an instrument body having a work portion. The imaging system further includes a detector for detecting the energy and a processor for determining the location of the medical instrument based on the detected energy (abstract). Chader et al. teach a need to correlate the position of a therapeutic or a surgical instrument during treatment with the produced diagnostic image of the treatment region so that the surgeon can correctly



position the instrument at the treatment region (Col. 1, lines 25-32). The imaging system (Fig. 1, # 10) includes a medical instrument (12) that is connected to a processor. Also connected to the processor are a sensor assembly, a host computer, and a reference frame. The medical instrument includes a plurality of energy-emitting elements for emitting energy that may be detected by sensors on the sensor assembly to determine the location of the energy-emitting elements in three-dimensional space. The reference frame is provided with a plurality of

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energy-emitting elements and is securely attached to a patient (P). Stored in the host computer, are previously obtained images of the patient, such as those obtained from an MRI scan. The location of the medical instrument may be tracked relative to the patient in real-time and correlated with the previously produced images of the patient's body which are displayed on a screen (28) of the host computer. To track the medical instrument in this manner, the medical instrument is advanced into the patient while the energy-emitting elements are energized and detected by the sensor assembly. The elements on the reference frame are also energized and detected so that the location of the medical instrument relative to the patient may be tracked by the processor, even when the patient is moved. The location information in the processor is then correlated with the previously produced images of the patient's body in the host computer so that as the surgeon moves the medical instrument to a treatment region, an image can be produced on the screen showing a position marker of the instrument relative to the previously produced images of the body. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the imaging and navigation system of Chader et al. in the device of Adair to provide additional positioning information in relation to diagnostic images. Adair suggest a wireless link to the display providing motivation to supplement the display of Chader et al. with the on instrument display of Adair.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,873,814 to Adair as applied to claims 1 and 2 above and further in view of U.S. Patent 5,617,857 to Chader et al. and further in view of U.S. Patent Application Publication 2003/0078494 to Panescu et al. Adair and Chader et al. are discussed above, but do not disclose an LED display. Panescu et al. disclose an LED display with a medical instrument locating system. It would have been obvious to one having ordinary skill in the art at the time

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the invention was made to use the LED display of Panescu et al. in the device of Adair/Chader et al. as such devices are well known and pervasive in the art for providing cost effective displays.

Claims 15-17 and 19-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,617,857 to Chader et al. and further in view of U.S. Patent 5,873,814 to Adair. Both are discussed above, however Chader et al. do not teach an instrument-mounted display. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the instrument mounted display of Adair on the invention of Chader et al. to allow the operator to observe the tool and images without looking away.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,617,857 to Chader et al. and further in view of U.S. Patent 5,873,814 to Adair and further in view of U.S. Patent Application Publication 2003/0078494 to Panescu et al. Chader et al. and Adair are discussed above, but do not disclose an LED display. Panescu et al. disclose an LED display with a medical instrument locating system. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the LED display of Panescu et al. in the device of Adair/Chader et al. as such devices are well known and pervasive in the art for providing cost effective displays.

Claims 28-30, 32-37, 40-43, 45-48 and 51-55 and 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,408,409 to Glassman et al. in view of U.S. Patent 5,873,814 to Adair. Glassman et al. teach an image directed robotic surgical system with a tool body (Fig. 1, # 36), a tool tip (Fig. 1, # 22), a communications link associated with the

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tool and a surgical navigation system (Fig. 1), a display unit associated with the tool body (Fig. 1, # 50), a tracking unit made up of LED's on the tool body (Fig. 1, # 34) and a camera unit (Fig. 1, # 28). The directed system can track six degrees of freedom (Col. 3, lines 25-26) and the positional information of the jointed arms of the robotic manipulator. Data from a CT pre-surgery image may be displayed (Col. 4, lines 14-30).

Regarding claims 34-37, Glassman et al. disclose the surgical tool as a pneumatic (power) cutting tool (Col. 3, lines 32-34). Cutting tool is interpreted as including both a drill and a saw.

Glassman et al. do not teach an instrument-mounted display. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the instrument mounted display of Adair on the invention of Glassman et al. to allow the operator to observe the tool and images without looking away.

Claims 31 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,408,409 to Glassman et al. in view of U.S. Patent 5,873,814 to Adair and further in view of U.S. Patent Application Publication 2003/0078494 to Panescu et al. Glassman et al. and Adair are discussed above, but do not disclose an LED display. Panescu et al. disclose an LED display with a medical instrument locating system. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the LED display of Panescu et al. in the device of Adair/Glassman et al. as such devices are well known and pervasive in the art for providing cost effective displays.

Claims 38, 39, 49, 50 and 56-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,408,409 to Glassman et al. in view of U.S. Patent 5,873,814 to Adair. Both are discussed above and Glassman et al. teach powered surgical instruments, but

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do not disclose use with a non-powered instrument. It would be obvious to use the surgical navigation system of Glassman with a non-powered surgical device like a biopsy needle, or any other device that depends on precise positioning to accomplish a procedure.

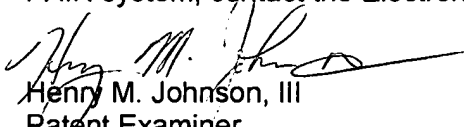
Conclusion

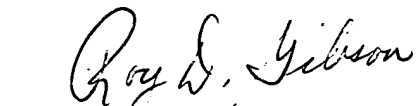
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent 6,419,626 to Yoon, U.S. Patent 5,928,137 to Green and U.S. Patent 5,373,317 all disclose displays mounted on a surgical instrument body.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Henry M Johnson, III whose telephone number is (571) 272-4768. The examiner can normally be reached on Monday through Friday from 6:00 AM to 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda C Dvorak can be reached on (571) 272-4764. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Henry M. Johnson, III
Patent Examiner
Art Unit 3739


ROY D. GIBSON
PRIMARY EXAMINER